



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,212	07/25/2003	Eric Roslund	031383-9079-01	4228
23409	7590	04/05/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP 100 E WISCONSIN AVENUE MILWAUKEE, WI 53202			CASAREGOLA, LOUIS J	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

87/

Office Action Summary	Application No.	Applicant(s)	
	10/627,212	ROSLUND ET AL.	
	Examiner	Art Unit	
	Louis J. Casaregola	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 12-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-2,4-10 is/are rejected.
- 7) ☒ Claim(s) 3,11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Restriction Requirement

Restriction to one of the following inventions is required under 35 U.S.C. § 121:

- I. Claims 1-11 drawn to a motor driven compressor (subcombination) classified in Class 417, subclass 423.7,
- II. Claims 12-24 drawn to a gas turbine engine with a fuel compressor (combination) classified in Class 60, subclass 234, and
- III. Claims 25-28 drawn to a method of supplying fuel to an engine classified in Class 60, subclass 773.

The inventions of Groups I-III above are distinct for the following reasons:

The apparatus of Group I is distinct from the method of Group III because the claimed apparatus could be used in a manner materially different than the claimed method. The apparatus, for example, is not limited to use in an engine fuel supply system as specified in the method; the apparatus could be used to boost gas pressure in other types of devices, such as a furnace.

The apparatus of Group II is distinct from the method of Group III because the method could be practiced with materially different apparatus. The method, for example, does not necessarily require a recuperated gas turbine engine as specified in the apparatus; the method could be performed in conjunction with other types of engines, such as a non-recuperated gas turbine or an ICE (internal combustion engine).

The apparatus in Groups I and II are also mutually distinct because the combination of Group II does not necessarily require all of the specific details of the subcombination of Group I. The combination, for example, does not necessarily require a rotary compressor – this point is supported by applying claim 12 as an evidence claim (MPEP 806.05(c)(III)). Furthermore, the compressor subcombination has separate utility and could be used in conjunction with gas fueled devices (furnaces, ICE's, etc.) different than the recuperated gas turbine engine in the combination.

Because these inventions are distinct for the reasons given above and require separate classification and/or divergent fields of search, restriction for examination purposes as indicated is proper.

On 3/22/05, applicants attorney, Mr. Thomas Otterlee, made a telephone election of the invention of Group I, claims 1-11. An action on the merits of these claims is set forth below, and non-elected claims 12-28 are withdrawn from further consideration.

Claim Rejections - 35 USC § 102

Claims 1, 2, and 4-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Masumoto et al.

The present claims read on conventional canned motor pump/compressor units of the type disclosed by Masumoto. Attention is called to Masumoto's Figure 1; note

that the device shown could be either a centrifugal liquid pump or a centrifugal compressor since both have the same basic configuration. Note also that Masumoto suggests devices of the general type disclosed may operate on gases (col. 1, line 14), and in that case, these devices would be compressors. Masumoto's device can therefore be treated as a compressor for the purposes of this rejection.

With specific reference to the details of Figure 1, see the compressor rotor (unnumbered) located on the right side, the compressor housing (also unnumbered) covering the rotor, the motor 1, and the motor housing defined by the outer wall surrounding the motor. See also the seal assembly comprising the wall structure and O-ring arranged between the compressor and motor housings – this assembly serves to delineate separate and mutually sealed compressor and motor chambers. The compressor chamber further extends to include the space within motor canister 2 such that motor rotor 6 is located in the compressor chamber and separated from ~~and~~ the motor chamber and the motor stator as specified in the present claims.

It is additionally noted that the claims describe the recited compressor apparatus as a "fuel booster". This is merely a statement of intended use. If the rotary compressor apparatus recited the present claims is capable of being used in this manner, then the structurally equivalent compressor apparatus disclosed in the prior art can be presumed equally capable.

With regard to claims 2 and 9, it is pointed out that the housing structure covering the front of Masumoto's compressor rotor includes inlet and outlet apertures (claim 2)

and the section extending from the impeller outlet aperture to the flange at the top of the compressor assembly constitutes a discharge housing (claim 9).

With respect to claim 4, it is additionally pointed out that Masumoto's compressor rotor includes a shaft extension defining a drive portion held in a sleeve-like manner by his motor rotor.

Claim Rejections - 35 USC § 103

Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Masumoto like claim 1 above and further in view of Yamamoto et al.

Claim 10 recites a variable frequency drive (electric power control) for controlling motor speed, but Masumoto provides no details of his electric power system. Variable frequency drives however have well known utility in the canned motor pump/compressor art, as demonstrated for example by Yamamoto; see element 76, and column 3, lines 3-5. It would have been obvious to use such a variable frequency drive system in conjunction with Masumoto's compressor motor in order to achieve the benefit normally associated with such a system, i.e. the ability to match compressor output with variable gas consumer demand by adjusting speed.

Allowable Subject Matter

Claims 3 and 11 contain allowable subject matter but are objected to as depending from rejected parent claims. If rewritten in independent form, these claims will be allowed.

Additional References

Walker and Inoue (JP 62-181640) are cited as disclosing further pertinent examples of canned motor type pump/compressor devices.

L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
703-872-9306 FAX
March 24, 2005



**LOUIS J. CASAREGOLA
PRIMARY EXAMINER**

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Cheryl Tyler, can be reached at 571-272-4834.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).